

# Passenger Rail in Virginia:

## Current Rail Initiatives to Improve Passenger Rail Service in the Commonwealth

July 13, 2006

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# National Passenger Rail Corridors



# National Passenger Rail

## Federal Legislation

- ☐ Amtrak funding approved at \$1.16 Billion for FY 2007
- ☐ Key Amtrak issues:
  - Leadership
  - Northeast Corridor
  - Continued push for states to fund the service
- ☐ US Senate: some movement (S. 1516) to fund the federal share for national passenger rail in the states
- ☐ Virginia's position: any shift to the states is an unfunded mandate

# “Higher” Speed Rail in Virginia

- ❑ Focus on “higher” speed rail
- ❑ High speed rail: 90-110 mph
  - Requires major, costly improvements to operate at this speed
  - Would be difficult to achieve within a reasonable time frame, given the level of funding currently available
- ❑ Many quick, high-impact improvements possible within the existing rail system:
  - Most trains in VA operate at 45 mph on average, while the speed limit is 70-79 mph
  - Need to bring average operating speed closer to maximum speed

# Virginia Railway Express Proposed Service Extension to Gainesville and Haymarket

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## July 13, 2006



# VRE Gainesville/Haymarket

## Project Scope

Conduct a Feasibility Study of 11 mile extension from Manassas to Haymarket

- ☐ Develop detailed cost estimates
- ☐ Develop construction phasing
- ☐ Update ridership forecasts
- ☐ Identify potential environmental and right-of-way issues
- ☐ Determine impact of the extension on the rest of the VRE System



# VRE Gainesville/Haymarket

## Budget and Schedule

### ☐ Budget

- Total Cost	\$121.0
- REF Phase 1 approved	\$0.7
- Match Phase 1	\$0.3
- REF Phase 2 (Estimate)	\$60.0
- Match Phase 2	\$60.0

### ☐ Schedule

Sept. 2006	Begin Phase
I - PE and NEPA	
Sept. 2007	Complete
Phase 1	
Spring 2009	Begin
Construction (Estimated)	



# Virginia Railway Express Proposed Cherry Hill Third Track

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# Cherry Hill 3<sup>rd</sup> Track



# VRE Cherry Hill 3<sup>rd</sup> Track

## Project Scope

- ❑ Preliminary Engineering of 11.4 miles of 3<sup>rd</sup> main track between Arkendale and Powell's Creek
- ❑ Conduct National Environmental Policy Act (NEPA) analysis of this proposed 3<sup>rd</sup> track
- ❑ Develop project benefits and measurements to determine performance requirements
- ❑ Local match provided by developer of Harbor Station at Cherry Hill, includes the following:
  - Design & construct VRE double platform at Cherry Hill Station
  - Design & construct the bridge over CSX tracks to replace existing Cherry Hill Rd. at-grade crossing
  - Design & construct 550 space parking structure for commuters at the Cherry Hill Station

# VRE Cherry Hill 3<sup>rd</sup> Track

## Budget and Schedule

### ☐ Budget

- Total Cost	\$72.0
- REF Phase 1 approved	\$2.5
- Match Phase 1	\$1.1
- REF Phase 2 (Estimate)	\$47.7
- Match Phase 2	\$20.7

### ☐ Schedule

Sept. 2006	Begin Phase
I - PE and NEPA	
Sept. 2007	Complete
Phase 1	
Spring 2008	Begin
Construction	

# Southeast High Speed Rail Corridor

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# Southeast High Speed Rail Corridor



# Southeast High Speed Rail

## Project Schedule

- 1998** Memorandum of Understanding (MOU)  
DRPT, NCDOT Rail, FRA, FHWA
- 1999** Tier I EIS - Joint VA/NC effort
- 9 alternatives
  - Over 1,200 miles of rail right of way
  - Over 7,000 phone contacts
  - Over 225,000 direct mail contacts
  - 26 public workshops, 26 official workshops, 18 public hearings
- 2002** Tier I EIS Record Of Decision by FRA  
and FHWA



# Southeast High Speed Rail

## Primary Outcomes from Tier I EIS

- ❑ Established project purpose & need
  - Provide competitive option
  - Ease growth of congestion
  - Improve safety & energy effectiveness
  - Reduce pollution emissions
  - Improve transportation effectiveness while minimizing environmental impacts
- ❑ Modal Alternative Selected
  - Incremental approach
  - Fossil fuel engines
  - 110 mph max. speed
- ❑ Established preferred study corridor

# Southeast High Speed Rail

## Tier II - Raleigh to Richmond (168 mi.)

May 2003	Notice to Proceed
July/Aug 2003	9 Public Workshops
2004/2005	Environmental Field Work Preliminary Engineering Public Involvement
Dec. 2005	REF Grant to extend to Richmond
Oct. 2007	Complete Draft EIS
April/May 2008	Public Hearings
Aug. 2008	Complete Final EIS
Dec. 2008	Record of Decision from FRA



# Southeast High Speed Rail

## Alternative Routes Richmond to Petersburg



# Southeast High Speed Rail

## Service Improvements

- ❑ High-speed train sets
- ❑ Reduced travel time
- ❑ Increased frequency
- ❑ Service expansion

*Time frame: within 10 years*

Travel Time Goal:

**9:15** ➡ **6:00**

# Southeast High Speed Rail

## Moving Forward

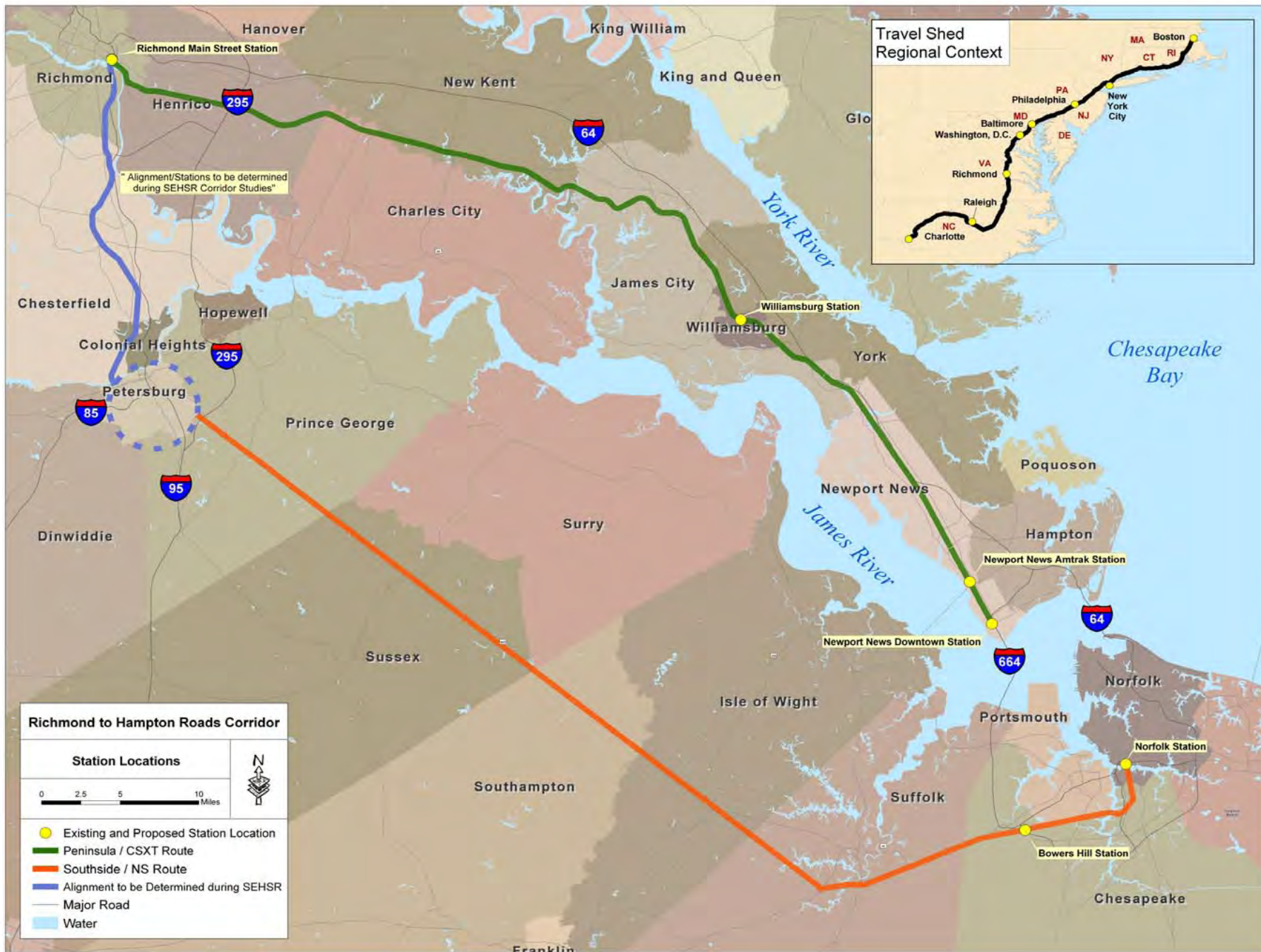
- ❑ Strong political support in both states
- ❑ Funding support in both states
- ❑ Current approach is incremental with limited state funds
- ❑ Ability to move forward to design and construct entire SEHSR system is dependent on a federal program
- ❑ Need to develop operations and maintenance plan

# Richmond/Hampton Roads Passenger Rail Study

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# Richmond to Hampton Roads

## Proposed Alternatives

		79 MPH	90 MPH			110 MPH		
Alternative	High Speed Route	Travel Time	Cost (M)	Ridership	Travel Time	Cost (M)	Ridership	Travel Time
Alternative 1 3 CSXT/6 NS	Southside	1:16	*\$191.4	815K - 1.10M	1:35	*\$231.0	852K - 1.15M	1:27
Alternative 2a 3 NS/6 CSXT	Peninsula	1:38	*\$347.1	794K - 1.11M	1:03	*\$406.3	818K - 1.15M	0:57
Alternative 2b 9 CSXT	Peninsula	1:38	\$192.9	777K - 1.09M	1:03	\$252.1	809K - 1.14M	0:57

### Notes:

2025 Ridership Projections

Cost in 2004 Dollars (In Millions)

Time measurement in Hours : Minutes

\*Does not include cost for Petersburg to Richmond =\$87.1



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# Richmond to Hampton Roads

## Project Schedule

- ☐ Nov 2003 EIS project started
- ☐ Spring 2004 Public Scoping Meetings
- ☐ Summer 2005 Alternatives Analysis Completed
- ☐ Spring 2006 Preliminary Draft EIS prepared & submitted to FRA
- ☐ Summer 2006 Review FRA comments and preparation of Draft EIS
- ☐ Fall 2006 Draft EIS issued and public hearings

# Richmond to Hampton Roads

## Next Steps

Schedule for completion of the following tasks dependent on funding:

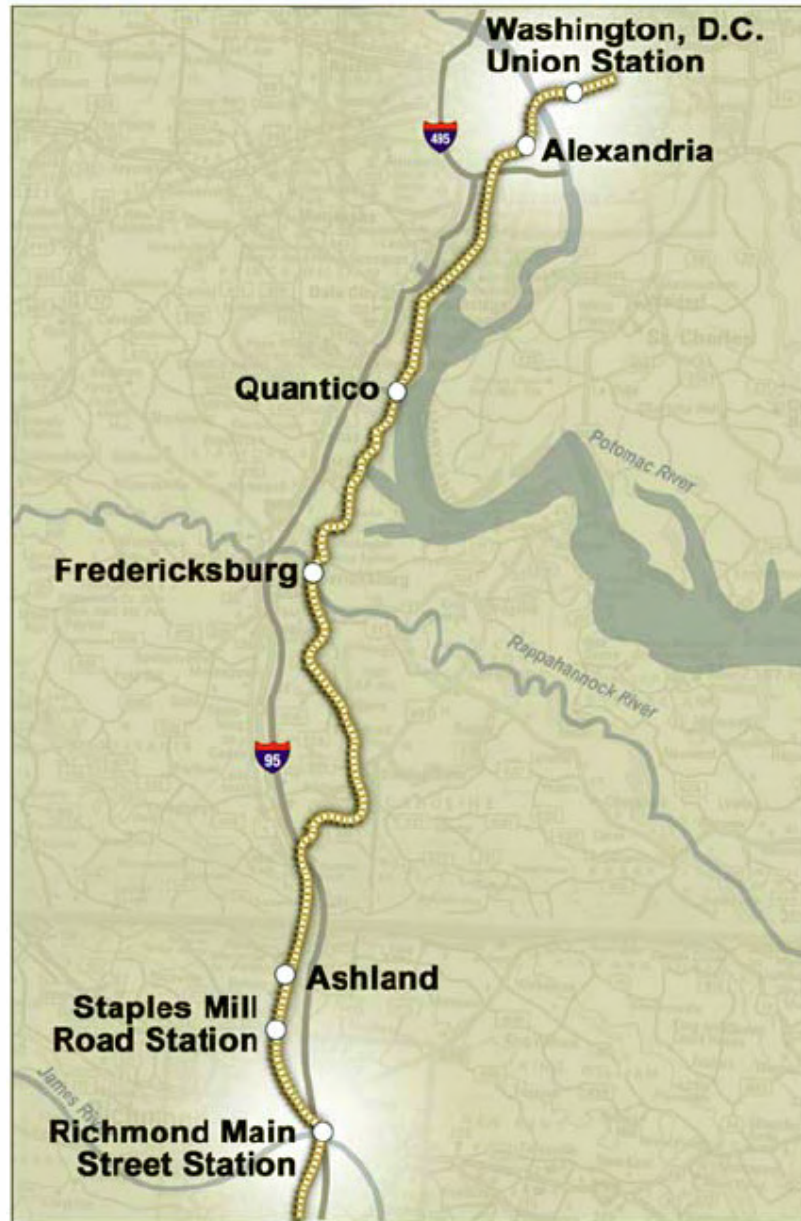
- ☐ Completion of Final Tier I EIS and Record of Decision
- ☐ Completion of Tier II EIS
- ☐ Final Design
- ☐ Construction
- ☐ Operations

# Washington, DC to Richmond Corridor Improvements

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# Washington, DC to Richmond Corridor



# Virginia Rail Needs 2004 – 2025

## Washington, DC to Richmond Corridor

### Needs:

- ☐ Complete 3<sup>rd</sup> track
- ☐ Upgrade signal system
- ☐ Add crossovers
- ☐ Cost: \$400 Million +

### Benefits:

- ☐ Reduce travel time by 30 minutes
- ☐ Increase maximum speed to 90 mph
- ☐ Increase frequency, capacity and reliability for both freight and passenger rail

# Projects Underway

## Washington, DC to Richmond Corridor

VTA 2000 Funds

Project	Cost (Millions)	Completion Date
Arkendale Crossover	\$5.6	Completed
Elmont Crossover	\$6.0	July 2006
L'Enfant 3 <sup>rd</sup> Track	\$6.2	Spring 2007
RO-SRO 3 <sup>rd</sup> Track	\$5.9	Spring 2007
Quantico Bridge (VRE)	\$6.0*	Spring 2007
Franconia 3 <sup>rd</sup> Track	\$9.7	Summer 2007
Fredericksburg 3 <sup>rd</sup> Track	\$6.0	Fall 2007

\* State share. There is also \$20 million in federal funding.

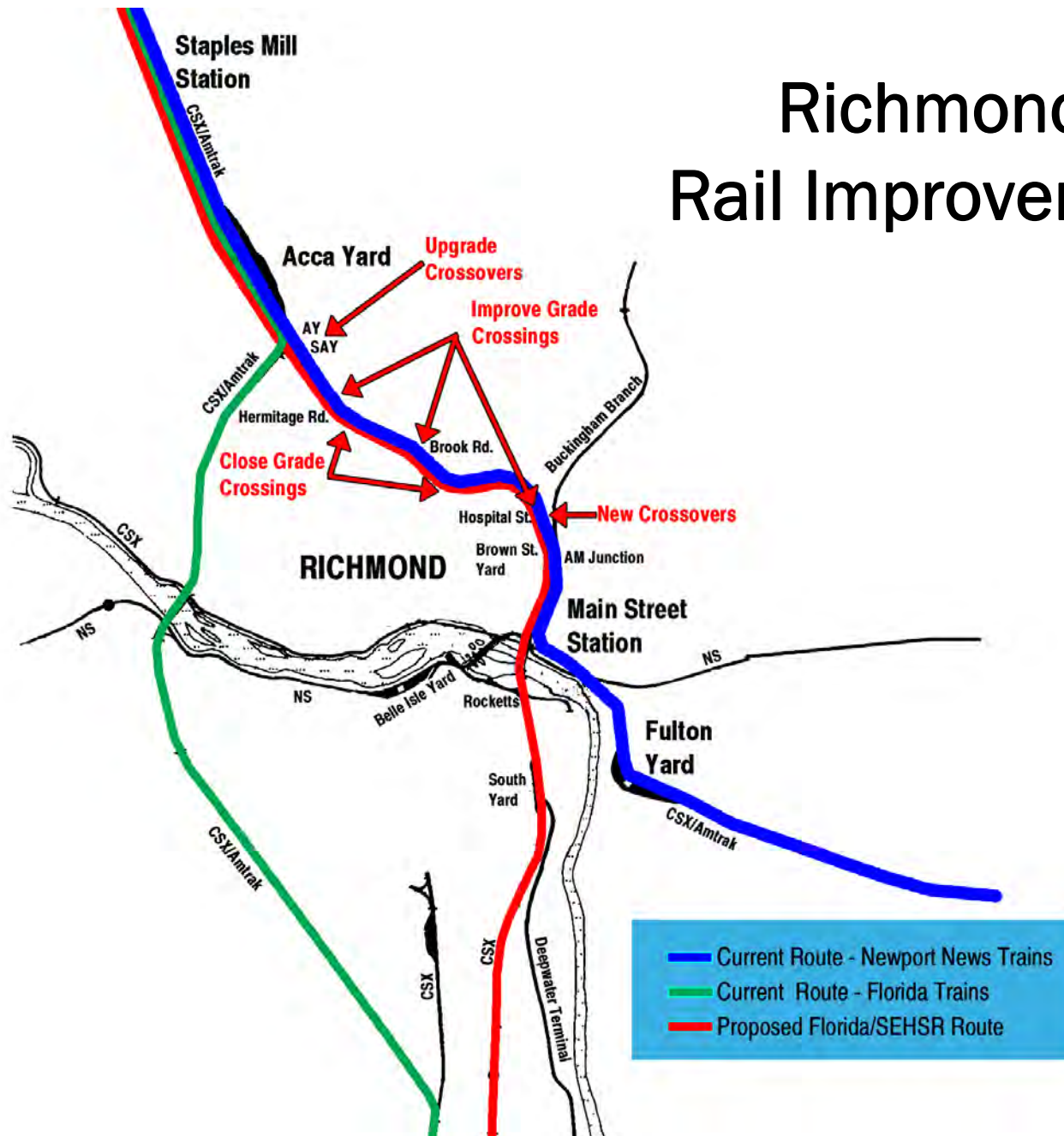


# Washington, DC to Richmond Corridor

## Quantico Creek Bridge



# Richmond Area Rail Improvements



# Richmond Area Improvements

## Short Term Projects

### Staples Mill to Main Street Station

#### Projects:

- ☐ Upgrade tracks and signals and realign curves to increase speed from 25 mph to 40 mph
- ☐ Upgrade three grade crossings
- ☐ Eliminate three grade crossings
- ☐ Install new universal crossover

#### Benefits:

- ☐ Reduce travel time by 5-7 minutes (estimated)
- ☐ Increase reliability
- ☐ Estimated completion: 2007

Estimated cost: \$14.9 Million

Funds currently available: \$12.5 Million

# Main Street Station

## Bringing More Trains Downtown

- ❑ Turning & storage facility near Main St. Station
- ❑ Acca Yard improvements
- ❑ Track upgrades for speed and capacity
- ❑ Improvements from Main St. Station south to Centralia to allow through-trains to serve downtown



# Acca Yard Study

- ☐ Major bottleneck for both freight and passenger trains
- ☐ Study is underway
- ☐ Funding
  - \$500K from Statewide Multimodal Planning Funds
  - CSX and Amtrak support
- ☐ Study Completion date: April 2007



# Washington, DC to Richmond Corridor

## Update of Costs and Priorities

- ❑ “Caboose Bill” provided \$200K funding to update corridor plan:
  - Identify additional right-of-way needed
  - Identify major environmental issues;
  - Develop a phased implementation plan including schedule and financing
  - Review legal and regulatory issues
  - Estimate the cost electrifying corridor
  - Report due December 1, 2006
- ❑ Additional \$500K Multi-Modal Planning Funds will be used to refine capital and operating cost estimates

# TransDominion Express

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# TransDominion Express

## Proposed Route and Stations



# TransDominion Express Need

- ☐ Provides a transportation alternative to under-served region of the Commonwealth
- ☐ Connects southwest Virginia with the rest of the state
- ☐ Economic development tool for the communities along the route

# TransDominion Express

## Project Schedule

- 1999 Bristol Rail Passenger Study
- 2000 Committee to Advance the TransDominion Express created
- 2001 Norfolk-Southern Study
- 2001 Amtrak Study
- 2004 Norfolk Southern Study on starter service
- 2005 Report to the General Assembly
- 2005 TDX Committee Incorporated as a 501(c)3 non-profit
- 2006 Additional report requested by General Assembly

# TransDominion Express

## Cost of Full Service

### From General Assembly Report (HD 37)

(In \$Millions)	Estimated Travel Time	Total Capital Costs	Annual Operating Costs
<b>Total System Costs</b>			
Bristol-Washington	8:18	\$120.0*	\$14.5
Bristol-Richmond	7:45		
Purchase & Refurbishment of 5 Rail Cars		\$2.5	\$0.0
<b>Total Costs</b>		<b>\$122.5</b>	<b>\$14.5</b>
State Funds Available		\$8.5 <sup>1</sup>	\$0.0
<b>Unfunded Balance</b>		<b>\$114.0</b>	<b>\$14.5</b>

\* Estimates of the total system capital and operating costs are preliminary and based on studies that were conducted in 2001. These estimates are under review and subject to further study.

<sup>1</sup> Funding from the Virginia Transportation Act of 2000

# TransDominion Express

## Cost of Proposed Starter Service

(In \$Millions)	Estimated Travel Time	Total Capital Costs	Annual Operating Costs
<b>Demonstration Service</b>			
Bristol-Richmond	10:00	20.0	\$8.0
DC-Charlottesville (VRE Extension)	2:30	\$2.0	\$1.1
Purchase & Refurbishment of 5 Rail Cars		\$2.5	\$0.0
<b>Total Costs</b>		<b>\$24.5</b>	<b>\$9.1</b>
State Funds Available		\$8.5 <sup>1</sup>	\$0.2 <sup>2</sup>
<b>Unfunded Balance</b>		<b>\$16.0</b>	<b>\$8.9</b>

<sup>1</sup> Funding from the Virginia Transportation Act of 2000.

<sup>2</sup> Service to Charlottesville by extension of VRE may be eligible for funding under the current State Mass Transit Trust Fund Formula Program. However, unless new funding is made available, this will have a negative impact on transit systems that are already funded through this program.

# TransDominion Express

## Overview of Startup Issues

### □ Governance

- TDX, Inc. has taken important 1<sup>st</sup> step of incorporating
- TDX, Inc. is applying for grants to fund staff and operations
- Inter-jurisdictional agreements not currently in place
- Legislation to create TDX Authority sent back to committee by General Assembly

### □ Operating Issues

- Who operates - Norfolk Southern?
- Operating cost
  - Liability
  - Access
- Storage

# TransDominion Express

## Additional Startup Issues

- ☐ Need for a financial plan:
  - Short and long-term capital needs
  - Short and long-term operating subsidies.
  - Sources of funding
  - Implementation schedule
- ☐ Options for phasing starter service
  - Bristol to Richmond
  - Charlottesville to Washington, DC (VRE extension)
  - Roanoke to Washington, DC
- ☐ Subject to negotiations with:
  - Norfolk Southern
  - VRE (Charlottesville extension)
  - CSX (Access to Union Station and Main St. Station)
- ☐ Possible purchase of five railcars from VRE

# TransDominion Express

## Updated System Study

- ❑ FY 2006 – 2008 Budget Bill directs DRPT to update study
  - Revise capital and operating costs
  - Estimate potential revenue
  - Determine potential to alleviate congestion
  - Study due on January 2, 2007
  - No funding provided
- ❑ Need to analyze relationship between TDX improvements and other rail initiatives:
  - I-81
  - Heartland Corridor
  - VRE service extensions
  - Washington, DC to Richmond corridor service



# Passenger Rail Projects

## Upcoming Milestones

2006	July	Completion of Elmont Crossover
	October	Completion of Richmond/Hampton Roads DEIS
	December	Completion of Washington, DC – Richmond Corridor Priority Plan
2007	January	Completion of TDX Update
	March	Completion of Quantico Creek Bridge
	April	Completion of Acca Yard Study
	May	Completion of L'Enfant 3 <sup>rd</sup> Track
	June	Completion of RO-SRO 3 <sup>rd</sup> Track
	August	Completion of Franconia 3 <sup>rd</sup> Track
	September	Completion of VRE Gainesville/Haymarket Extension Feasibility Study
	September	Completion of VRE Cherry Hill 3 <sup>rd</sup> Track PE and Environmental Study
	October	Completion of SEHSR Tier II DEIS
	November	Completion of Fredericksburg 3 <sup>rd</sup> Track
	December	Completion of Richmond Improvements



Virginia Department of Rail and Public Transportation

***The Smartest Distance Between Two Points***

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